providing a semiconductor wafer comprising a plurality of undivided integrated circuit chips, each circuit chip having a plurality of metal contact pads as electrical entry and exit ports;

forming a planar array of solder balls attached to said contact pads of said plurality of chips on said semiconductor wafer so that each of said contact pads is contacted by one of said solder balls;

providing an interposer of electrically insulating material having first and second opposite surfaces and electrically conductive paths from said first surface to said second surface, forming electrical entry and exit ports on said insulating interposer;

applying radiant energy to said interposer and then aligning said interposer with said solder balls so that each port is placed into alignment with one of said solder balls on said semiconductor wafer;

contacting said ports and said solder balls;

applying radiant energy to said semiconductor wafer such that said wafer increases uniformly in temperature and transfers heat to said solder balls, causing the solder balls to reach a liquid state;

removing said energy such that said solder balls cool and harden, forming physical bonds between said solder balls and said ports; and

separating the resulting composite structure into discrete chips.

15. (Twice Amended) A method for the fabrication of a semiconductor assembly comprising:

providing a silicon semiconductor wafer comprising a plurality of undivided integrated circuit chips, each circuit chip having a plurality of metal contact pads as electrical entry and exit ports;

forming a first planar array of solder balls attached to said contact pads of said plurality of chips on said semiconductor wafer so that each of said contact pads is contacted by one of said solder balls;

providing an interposer of electrically insulating material having first and second opposite surfaces and electrically conductive paths from said first surface

to said second surface, forming electrical entry and exit ports on said insulating interposer;

aligning said interposer with said solder ball so that each port is placed into alignment with one of said solder balls on said semiconductor wafer;

contacting said ports and said solder balls;

applying radiant energy having a wavelength of 0.8 to 2.8 μm to said semiconductor wafer such that said wafer increases uniformly in temperature and transfers heat to said solder balls, causing said solder balls to reach a liquid state;

said wavelength causing the wafer to heat more rapidly than said interposer;

removing said energy such that said solder balls cool and harden, forming physical bonds between said solder balls and said ports;

forming a second planar array of solder balls attached to said exit ports of said interposer so that each of said exit ports is contacted by one of said solder balls; and

separating the resulting composite structure into discrete chips.

16. (Twice Amended) A method for the fabrication of a semiconductor assembly comprising:

providing a semiconductor wafer comprising a plurality of undivided integrated circuit chips, each circuit chip having a plurality of metal contact pads as electrical entry and exit ports;

providing an adhesive layer having first and second opposite surfaces and a multitude of electrically conductive fibers extending through electrically nonconductive material from said first surface to said second surface of the layer while remaining insulated from adjacent fibers;

providing an interposer of electrically insulating material having first and second opposite surfaces and electrically conductive paths from said first surface to said second surface, forming electrical entry and exit ports on said insulating interposer;

placing said interposer vertically and in contact with said adhesive substrate;

providing a polymer film having a plurality of discrete adhesive areas;

providing a plurality of solder balls, one of said solder balls being placed on each of said adhesive areas;

aligning said polymer film to said interposer so that each of said solder balls is placed into alignment with one of said ports;

placing said solder balls in contact with said ports;

applying radiant energy to said semiconductor wafer such that said wafer uniformly increases in temperature and transfers heat to said adhesive substrate, said interposer and said solder balls, causing said solder balls to reach a liquid state;

separately controlling the temperature of said interposer in order to minimize differences in thermal expansion;

removing said energy such that all said contacts form physical bonds and said solder balls cool and harden, forming physical bonds between said solder balls and said ports;

removing said polymer film; and

separating the resulting composite structure into discrete chips.

19. (amended) A method as in claim 14, wherein said step of applying radiant energy to said interposer heats said interposer to a temperature in the range of 75 to 80 percent of the temperature that causes said solder balls to reach a liquid state.